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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,889	11/27/2000	Henry F. Lada	COMP:0129 (P00-3124)	6088

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Intellectual Property Administration
Legal Department, M/S
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EXAMINER	
YANCHUS III, PAUL B	

ART UNIT	PAPER NUMBER
2116	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/722,889	LADA ET AL.	
	Examiner	Art Unit	
	Paul B Yanchus	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *26* is/are allowed.

6)☒ Claim(s) *1,2 and 4-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This final office action is in response to communications filed on 1/11/05.

Allowable Subject Matter

Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 26 is allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 4-10 and 12-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shih et al, US Patent no. 6,405,362 [Shih], in view of, Mills et al., US Patent no. 6,353,870 [Mills].

Regarding claim 1, Shih teaches a method comprising:

coupling an option pack [Compact Flash, PCMCIA memory card or other removable computer readable medium] to a main unit [Palm-size PC, column 6, lines 43-46],

the option pack comprising a first memory device configured to store one or more applications and drivers associated with the one or more applications [column 6, lines 9-20],

the main unit comprising a device manager [operating system, column 6, lines 20-25], a power supply and a third memory [column 4, lines 49-51 and Figure 1]; and

downloading the one or more applications and associated drivers from the first memory device to the third memory device [column 7, lines 20-23 and lines 55-61].

Shih does not explicitly specifically disclose a second memory device on the option pack that stores card identification data and is different from the first memory device. Shih does state that the option pack may be any well known removable computer medium [column 6, lines 43-46]. Mills discloses a known MultiMediaCard, which includes a first memory for storing application data [Memory Core in Figure 3A] and a second memory, which is different from the first memory, that stores card identification data [CID and CSD in Figures 3A and 3B]. Mills discloses that the CID and CSD registers contain information that is needed for the card to interface with host computers [Figure 3B].

It would have been obvious to one of ordinary skill in the art to use the Mills MultimediaCard as the removable computer medium disclosed by Shih as it is a known removable computer medium capable of fulfilling Shih's goal of providing additional functionality to a Palm-size PC.

Regarding claim 2, Shih states that the option pack may be any well known removable computer medium [column 6, lines 43-46].

Regarding claim 4, Shih discloses a driver for overseeing the interaction between that main unit and the option pack [shell and event manager, column 6, lines 28-31 and 41-45].

Regarding claim 5, Shih states that the option pack may be a Compact Flash card [column 6, lines 43-46].

Regarding claim 6, Mills states that known removable expansion cards contain ROM [column 1, lines 19-21].

Regarding claim 7, Shih teaches that the installed applications from the option pack are deleted when the option pack is removed [column 7, lines 23-28 and lines 62-67]. Therefore, the memory in the main unit will not comprise the option pack applications when the card is inserted.

Regarding claim 8, Shih teaches that the installed applications from the option pack are deleted when the option pack is removed [column 7, lines 23-28 and lines 62-67].

Regarding claim 9, Shih teaches that the installed applications from the option pack are deleted when the option pack is removed [column 7, lines 20-28 and lines 62-67].

Regarding claim 10, Shih teaches removing the option pack from the main unit [column 7, lines 62-64].

Regarding claim 12, Shih teaches that the installed applications from the option pack are deleted when the option pack is removed [column 7, lines 20-28 and lines 62-67].

Regarding claim 13, Mills teaches that the CID and CSD registers contain option card configuration and identification information [Figure 3B].

Regarding claim 14, Mills teaches that the MultimediaCard communicates data to the main unit through a single data pin [DAT in Figure 3]. Therefore, any information transferred from the MultimediaCard to the mina unit must be done serially.

Regarding claim 15, it is well known in the art that transmitting less data requires less power. It would have been obvious to one of ordinary skill in the art that transmitting the

identification data would take less power than transmitting application and driver data, since the size of the identification data is less than the size of the drivers and applications.

Regarding claims 16 and 18, Shih and Mills do not explicitly teach determining whether the power supply in the main unit has enough power to activate the option pack fully. However, the Examiner takes official notice that it is notoriously well known in the art to determine whether a power supply has enough power to fully perform a function before attempting to complete the function. Accordingly, it would have been obvious to one of ordinary skill in the art to determine whether the power supply in the main unit has enough power to activate the option pack fully before attempting to activate the option to prevent the activation process from being stopped prematurely due to power deficiencies.

Regarding claims 17 and 19, Shih and Mills do not explicitly teach determining whether the third memory space has enough memory capacity to receive the applications and associated drivers stored on the first memory. However, the Examiner takes official notice that it is notoriously well known in the art to determine whether a first memory has enough memory capacity to completely save data copied from a second memory before attempting to copy the data. Accordingly, it would have been obvious to one of ordinary skill in the art to determine whether the third memory space has enough memory capacity to receive the applications and associated drivers stored on the first memory to prevent wasted time and power consumption of attempting to copy data to the third memory when it does not have enough memory capacity.

Regarding claim 20, Shih teaches a method of connecting an option pack to a main unit comprising:

powering on the main unit and determining if there is an option pack coupled to the main unit [column 6, lines 41-51 and column 8, lines 10-18];

providing an interrupt signal from the option pack to the main unit, interrupting the processing of the main unit and notifying the main unit that the option pack is present [column 6, lines 32-40 and 42-46]; and

downloading one or more software applications and associated drivers from the option pack to the main unit [column 7, lines 20-23 and lines 55-61].

Shih does not explicitly specifically disclose a second memory device on the option pack that stores card identification data and is different from the first memory device. Shih does state that the option pack may be any well known removable computer medium [column 6, lines 43-46]. Mills discloses a known MultiMediaCard, which includes a first memory for storing application data [Memory Core in Figure 3A] and a second memory, which is different from the first memory, that stores card identification data [CID and CSD in Figures 3A and 3B]. Mills discloses that the CID and CSD registers contain information that is needed for the card to interface with host computers [Figure 3B].

It would have been obvious to one of ordinary skill in the art to use the Mills MultimediaCard as the removable computer medium disclosed by Shih as it is a known removable computer medium capable of fulfilling Shih's goal of providing additional functionality to a Palm-size PC.

Regarding claim 21, Shih and Mills, as described above, teach that the option pack is inserted into main unit while the main unit is powered on. Therefore, the option pack is being hot-plugged into the main unit.

Regarding claims 22 and 23, Shih and Mills do not explicitly teach determining whether the power supply in the main unit has enough power to activate the option pack fully. However, the Examiner takes official notice that it is notoriously well known in the art to determine whether a power supply has enough power to fully perform a function before attempting to complete the function and notifying a user if there is not enough power. Accordingly, it would have been obvious to one of ordinary skill in the art to determine whether the power supply in the main unit has enough power to activate the option pack fully before attempting to activate the option to prevent the activation process from being stopped prematurely due to power deficiencies.

Regarding claims 24 and 25, Shih and Mills do not explicitly teach determining whether the third memory space has enough memory capacity to receive the applications and associated drivers stored on the first memory. However, the Examiner takes official notice that it is notoriously well known in the art to determine whether a first memory has enough memory capacity to completely save data copied from a second memory before attempting to copy the data and notifying a user if there is not enough memory capacity. Accordingly, it would have been obvious to one of ordinary skill in the art to determine whether the third memory space has enough memory capacity to receive the applications and associated drivers stored on the first memory to prevent wasted time and power consumption of attempting to copy data to the third memory when it does not have enough memory capacity.

Response to Arguments

Applicant's arguments with respect to claim 26 have been fully considered and are persuasive. The rejection of claim 26 has been withdrawn.

Regarding claims 1 and 20, Applicant argues, "there is no disclosure or suggestion that the memory core and the registers disclosed in the Mills reference are separate memory devices." The examiner disagrees. As shown in Figure 3A, the Card Interface Controller requires the Memory Core Interface to communicate with the Memory Core, but the CID register may directly communicate with the Card Interface Controller. Therefore, the memory core and the registers disclosed in the Mills reference are separate and independent memory devices.

To further support the assertion that the memory core and the registers disclosed in the Mills reference are separate memory devices, the examiner submits "The MultiMediaCard System Summary Version 2.0" [MultiMediaCard]. MultiMediaCard discloses a figure [Figure 5 on page 12], which is very similar to Figure 3A in the Mills reference. These figures are intended to be a representation of the architecture of a MultiMediaCard. MultiMediaCard states that the five registers [OCR,CID,CSD,RCA and DSR] are positioned within the card interface [page 18]. Because the registers are located in the card interface and not the memory core, the registers and the memory core must be separate and independent memory devices. Therefore, the memory core and the registers disclosed in the MultiMediaCard reference and in the Mills reference are separate and independent memory devices.

Regarding claims 16, 18, 22 and 23, Applicant challenges the official notice taken by the examiner and argues that determining whether a power supply has enough power to fully perform a function before attempting to complete the function is not well known in the art.

To support the assertion that determining whether a power supply has enough power to fully perform a function before attempting to complete the function is well known in the art, the examiner submits Yamagata, US Patent no. 6,609,072. Yamagata discloses a method of

determining whether a battery has enough remaining capacity to carry out an input or output of data and allowing the input or output of data execute if the remaining capacity is sufficient [column 4, lines 32-45].

To further support the assertion that determining whether a power supply has enough power to fully perform a function before attempting to complete the function is well known in the art, the examiner submits Hayasaka, US Patent no. 5,845,142. Hayasaka discloses a method of comparing a residual battery capacity with a power necessary for communication and allowing the communication if the residual battery capacity is high enough [column 4, line 60 – column 5, line 39].

Regarding claims 17, 19, 24 and 25, Applicant challenges the official notice taken by the examiner and argues that determining whether a first memory has enough memory capacity to completely save data copied from a second memory before attempting to copy the data onto the first memory is not well known in the art.

To support the assertion that determining whether a first memory has enough memory capacity to completely save data copied from a second memory before attempting to copy the data onto the first memory is well known in the art, the examiner submits Otsuka et al., US Patent no. 6,201,771 [Otsuka]. Otsuka discloses verifying that a disk has enough capacity to store all data to be downloaded before downloading the data from another memory [column22, lines 28-47].

The Applicant's arguments are not persuasive. The rejection of claims 1,2 and 4-25 is respectfully maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul B Yanchus whose telephone number is (571) 272-3678. The examiner can normally be reached on Mon-Thurs 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Yanchus
April 1, 2005

JOHN R. COTTINGHAM
PRIMARY EXAMINER